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LAB: CSE4002 Mobile Application Development LAB

1. Design an app that creates dynamic adding and removing of chip buttons.

MainActivity.java

```
package com.example.chipbutton_19bce7230;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import com.google.android.material.chip.Chip;
import com.google.android.material.chip.ChipGroup;
public class MainActivity extends AppCompatActivity {
  ChipGroup chipGroup;
  Button btnAddChip;
  int chipNumber=0;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity main);
```

```
chipGroup=findViewById(R.id.chipGroup);
      btnAddChip=findViewById(R.id.button);
      btnAddChip.setOnClickListener(new View.OnClickListener() {
           @Override
          public void onClick(View view) {
               Chip chip=new Chip(MainActivity.this);
               chip.setText("chip"+chipNumber);
               chip.setCheckable(true);
               chip.setCloseIconEnabled(true);
               chipGroup.addView(chip);
               chip.setOnCloseIconClickListener(new View.OnClickListener() {
                   @Override
                   public void onClick(View v) {
                       chipGroup.removeView(chip);
                   }
               });
      });
   }
}
```

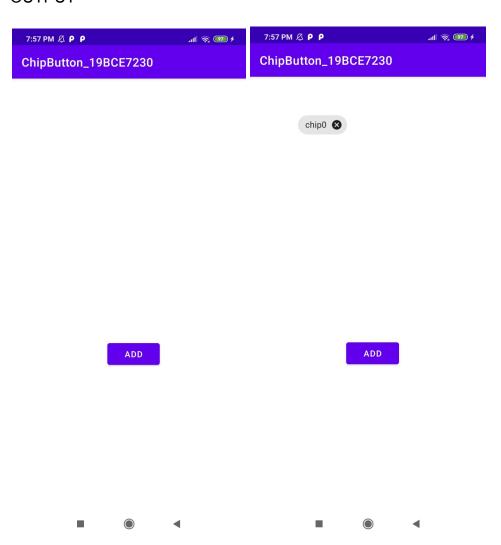
XML Code

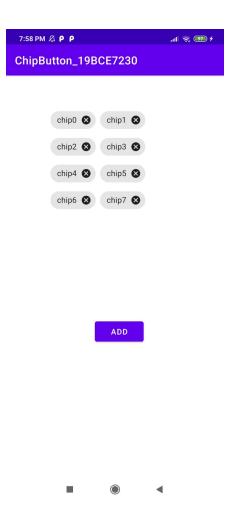
```
<?xml version="1.0" encoding="utf-8"?>
```

```
<androidx.constraintlayout.widget.ConstraintLayout</pre>
xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:app="http://schemas.android.com/apk/res-auto"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout width="match parent"
   android:layout height="match parent"
   tools:context=".MainActivity">
   <Button
       android:id="@+id/button"
       android:layout width="wrap content"
       android:layout height="wrap content"
       android:layout marginStart="160dp"
       android:layout marginBottom="236dp"
       android:text="ADD"
       app:layout constraintBottom toBottomOf="parent"
       app:layout constraintStart toStartOf="parent"
       app:layout constraintTop toBottomOf="@+id/chipGroup" />
   <com.google.android.material.chip.ChipGroup</pre>
       android:id="@+id/chipGroup"
       android:layout width="251dp"
       android:layout height="0dp"
       android:layout marginStart="80dp"
       android:layout marginTop="56dp"
       android:layout marginBottom="122dp"
```

```
app:layout_constraintBottom_toTopOf="@+id/button"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent">
</com.google.android.material.chip.ChipGroup>
```

OUTPUT-





2. Design an App for the Gmail header. Whenever the user enters an email in the "To" section create a chip button with photo and the email. It should also contain close button to remove the chip button.

MainActivity.java

```
package com.example.gmail_19bce7230;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import com.google.android.material.chip.Chip;
```

```
import com.google.android.material.chip.ChipGroup;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
   Button b1;
  EditText et1, et2, et3, et4;
  private ChipGroup c;
   @Override
   protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity main);
       b1 = findViewById(R.id.b);
       et1 = findViewById(R.id.from);
       et2 = findViewById(R.id.to);
       et3 = findViewById(R.id.msg);
       et4 = findViewById(R.id.subject);
       c = findViewById(R.id.chipgr);
       b1.setOnClickListener(new View.OnClickListener() {
           @Override
           public void onClick(View v) {
               Chip chip = new Chip (MainActivity.this);
               c.addView(chip);
               chip.setText(e2.getText());
               chip.setChipIcon(getDrawable(R.drawable.image2));
               et2.setText(null);
               chip.setCloseIconVisible(true);
               chip.setOnCloseIconClickListener(new View.OnClickListener() {
                   @Override
                   public void onClick(View v) {
                       c.removeView(chip);
               });
      });
   }
}
XML Code
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
```

xmlns:android="http://schemas.android.com/apk/res/android"

```
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout width="match parent"
android:layout height="match parent"
tools:context=".MainActivity">
<EditText
   android:id="@+id/from"
   android:layout width="281dp"
   android:layout height="48dp"
   android:layout marginTop="120dp"
   android:layout marginEnd="84dp"
   android:ems="10"
   android:hint="From"
   android:inputType="textEmailAddress"
   android:textSize="16sp"
   app:layout constraintEnd toEndOf="parent"
   app:layout constraintTop toTopOf="parent"
   tools:ignore="TouchTargetSizeCheck" />
<EditText
   android:id="@+id/to"
   android:layout width="281dp"
   android:layout height="48dp"
   android:layout marginTop="212dp"
   android:layout marginEnd="80dp"
   android:ems="10"
   android:hint="To"
   android:inputType="textEmailAddress"
   android:textSize="16sp"
   app:layout constraintEnd toEndOf="parent"
   app:layout constraintTop toTopOf="parent"
   tools:ignore="TouchTargetSizeCheck" />
<EditText
   android:id="@+id/subject"
   android:layout width="281dp"
   android:layout height="48dp"
   android:layout marginBottom="388dp"
   android:ems="10"
   android:hint="Subject"
   android:inputType="textPersonName"
   android:textSize="16sp"
   app:layout constraintBottom toBottomOf="parent"
   app:layout constraintEnd toEndOf="parent"
   app:layout constraintHorizontal bias="0.384"
   app:layout constraintStart toStartOf="parent"
    tools:ignore="TouchTargetSizeCheck" />
```

```
<EditText
       android:id="@+id/msq"
       android:layout width="343dp"
       android:layout height="0dp"
       android:layout marginEnd="40dp"
       android:layout marginBottom="324dp"
       android:ems="10"
       android:hint="Message"
       android:inputType="textMultiLine"
       android:textSize="18sp"
       app:layout constraintBottom toBottomOf="parent"
       app:layout constraintEnd toEndOf="parent" />
   <Button
       android:id="@+id/b"
       android:layout width="wrap content"
       android:layout height="wrap content"
       android:layout marginBottom="204dp"
       android:text="Enter"
       app:layout constraintBottom toBottomOf="parent"
       app:layout constraintEnd toEndOf="parent"
       app:layout constraintHorizontal bias="0.461"
       app:layout constraintStart toStartOf="parent" />
   <com.google.android.material.chip.ChipGroup</pre>
       android:id="@+id/chipgr"
       android:layout width="281dp"
       android:layout height="48dp"
       android:layout marginStart="16dp"
       android:layout marginEnd="16dp"
       android:layout marginBottom="288dp"
       android:background="@color/white"
       app:layout constraintBottom toBottomOf="@+id/b"
       app:layout constraintEnd toEndOf="@+id/to"
       app:layout constraintStart toStartOf="@+id/to">
   </com.google.android.material.chip.ChipGroup>
</androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT-

